

The following beetles were refused, usually after tasting:—

CANTHARIDÆ:—*Mylabris palliata*, *M. holosericea*, *Ectica rufa*, *Zonitis* sp. (all most conspicuous).

COCCINELLIDÆ:—*Epilachna dregei* (characteristic colouring).

CLERIDÆ:—“*Clerus*” sp. (scarlet).

PHYTOPHAGA:—*Diapantha conifera* (Lycoid).

MELYRIDÆ:—*Prionocerus dimidiatus* (Lycoid).

LYCIDÆ:—Three characteristically coloured species of *Lycus*.

CETONIIDÆ:—*Clinteria infuscata* (orange thorax with two black spots, brown elytra, sometimes black).

HETEROMERA:—*Lagria*, sp. Probably distasteful, conspicuous and synposematic with Phytophaga.

SCARABÆIDÆ:—*Onthophagus gazella*, smallish Scarabæid with brown elytra and iridescent dark green thorax and head.

With the possible exception of the last named, all these species possess distinct aposematic colouring, and nearly all belong to groups which are much mimicked, or fall into important synposematic combinations.

Mr. Marshall specially points out that the Kestrel, *C. naumanni*, was young, and it is probable that it had never before had experience of many of these species.—E. B. P.]

10. EXPERIMENTS ON A TAME GROUND HORN-BILL (*Bucorax caffer*). (G. A. K. M.)

Malvern, Natal, May 14, 1897.

March 14. Gave a tame ground horn-bill (*Bucorax caffer*), belonging to Col. J. H. Bowker, the following butterflies: two male *A. serena*, one *P. lyæus*, one male *H. misippus*, one male *A. serena*, all of which he ate readily, taking them in the end of his beak, crushing the thorax and throwing them down his throat. I then gave him *L. chrysippus*. He took it, crushed the thorax and dropped it at once. A second specimen given a short time afterwards was treated in the same manner.

„ 24. Gave the following butterflies to ground horn-bill: three *A. encedon*, one *A. petraea*,

one *P. aganice*, two *J. clelia*, three male *H. missippus*, one *P. tropicalis*, two *P. brasidas*, two *P. demodocus*, one *P. lyæus*, and two *B. forestan*. He ate every one without the least hesitation, and evidently appreciated them, as he would follow me about, waiting for more.

April 1. Gave ground horn-bill one *A. petraea*, two *A. cubira*, one *P. brasidas*, one male *H. missippus*, and one *P. esebria*, all of which he ate readily.

[It has already been pointed out that the acceptance of insects by insectivorous animals in captivity is no proof of their normal likes or dislikes in a wild state. Such acceptance only proves what their action would be when they had been, from some exceptional cause, kept without their normal food in its usual quantity and variety. Hence the fact that the *Acraeas* were devoured is no evidence that they are normally eaten except in a time of unusual hunger. On the other hand, the rejection of two *L. chrysipus*, after three *Acraeas* had been readily eaten, indicates that the former butterfly is decidedly distasteful to this species of bird. It must be remembered that five *Acraeas* were freely eaten on the next occasion. A comparison with the experiments on Mantides is interesting.—E. B. P.]

11. THE INSECT-FOOD OF WILD SOUTH AFRICAN BIRDS. (G. A. K. M.)

[Even more important than the results of experiments are the observations made and collected by Mr. Marshall upon the contents of the stomachs of birds, and the record of actual attacks made by birds upon insects, which have been witnessed in the field. The contents of birds are clearly shown in the two following tables, A and B, which are printed just as I received them from Mr. Marshall, except that I have added a brief description of the general appearance of those insects which seemed to require it. Mr. Marshall had only supplied such a description in three or four cases. In future records of this kind it will be advisable for the observer on the spot to supply such notes, together with a brief account of the habits, inasmuch as conspicuousness or concealment depend upon these quite as much as upon colour and pattern.—E. B. P.]